

IN THE CLAIMS:

Please amend claims 1, 3-10, 13-17, 19, 21, and 23-30; and add new claim 31 as follows.

1. (Currently Amended) A ~~method for controlling an inter-working function linked with an Asynchronous Transfer Mode (ATM) transport network and an Internet Protocol (IP) transport network~~, comprising:

configuring ~~said~~ an inter-working function to use a user defined information element of an existing protocol;

using the existing protocol to establish data transport bearers to adapt a new protocol for controlling the transport bearers in a ~~Transport Network Layer~~ transport network layer; and

conveying transport related information between entities in ~~the ATM an asynchronous transfer mode and IP an internet protocol~~ transport networks for controlling the transport bearers in the transport network layer ~~Transport Network Layer~~.

2. (Cancelled)

3. (Currently Amended) The method according to claim ~~2~~1, wherein said transport related information includes at least one of: transport network layer address information, transport network layer resource information, Transmission Time Interval of the transport network layer user, packet size information and Quality of Service information

4. (Currently Amended) The method according to claim 1, further comprising:
using said ~~ATM~~ asynchronous transfer mode transport network in a radio access network ~~Radio Access Network~~, wherein said existing protocol is access link control application protocol ~~Access Link Control Application Protocol (ALCAP)~~ protocol-based on asynchronous transfer mode adaptation layer type 2 signalling ~~ATM Adaptation Layer Type 2 (AAL2) Signalling~~.

5. (Currently Amended) The method according to claim 4, wherein said ~~AAL2~~ asynchronous transfer mode adaptation layer type 2 signalling is based on International Telecommunication Union (ITU)-Recommendation Q.2630.

6. (Currently Amended) The method according to claim 5, further comprising:
utilizing as said user defined information element of an existing ALCAP access link control application protocol a ~~Served-User Transport (SUT) Element~~ served user transport element of said Q.2630 signalling.

7. (Currently Amended) The method according to claim 1, further comprising:
using said user defined information element in said new protocol for conveying information needed by said existing protocol, wherein said existing protocol comprises ALCAP access link control application protocol.

8. (Currently Amended) The method according to claim 1, further comprising:
including said user defined information element in an establish confirm ~~Establish Confirm~~ message of said existing protocol, wherein said existing protocol comprises ALCAP access link control application protocol.

9. (Currently Amended) The method according to claim 1, further comprising:
including said user defined information element in an ~~Establish Request~~ establish request message of said existing protocol, wherein said existing protocol comprises ~~ALCAP~~ access link control application protocol.

10. (Currently Amended) The method according to claim 2_1, further comprising:

receiving an address information of an ~~Radio Access Network~~ a radio access network node;

checking whether said address information is compatible with an address space of receiving protocol; and

if said address information is not compatible, determining an address of said inter-working function.

11. (Previously Presented) The method according to claim 10, wherein the determining of the address of said inter-working function is by default for each network node.

12. (Previously Presented) The method according to claim 10, further comprising:

querying the address of said inter-working function from a centralized location in said network.

13. (Currently Amended) The method according to claim 10, wherein the determining of the address of said inter-working function is based on a physical port from which an ~~Application Protocol~~ application protocol message is received.

14. (Currently Amended) The method according to claim 10, wherein the determining of the address of said inter-working function is based on a logical port from which an ~~Application Protocol~~ application protocol message was received.

15. (Currently Amended) The method according to claim 10, wherein the checking comprises using a type of address information field that indicates at least one of a set including, a type of a network node, a type of address and a type of ~~Transport Layer~~ transport layer.

16. (Currently Amended) The method according to claim 10, wherein said checking comprises using a type of node information field that indicates at least one of a set including, a type of a network node, a type of address and a type of ~~Transport Layer~~ transport layer.

17. (Currently Amended) The method according to claim 7, wherein said checking comprises using a type of transport layer information field that indicates at least one of a set including, a type of a network node, a type of address and a type of ~~Transport Layer~~ transport layer.

18. (Previously Presented) The method according to claim 1, further comprising:

making in said inter-working function a mapping between a first interface of said existing protocol and a second interface of said new protocol, wherein said mapping is based on information in said user defined element.

19. (Currently Amended) The method according to claim 1, further comprising implementing said inter-working function as a stand-alone node in said ~~ATM~~ asynchronous transfer mode transport network.

20. (Previously Presented) The method according to claim 1, further comprising:

implementing said inter-working function as a stand-alone node in a transport network.

21. (Currently Amended) The method according to claim 1, further comprising:

implementing said inter-working function as a part of a network node in said ~~ATM~~ asynchronous transfer mode transport network.

22. (Previously Presented) The method according to claim 1, further comprising:

implementing said inter-working function as a part of a network node in a transport network.

23. (Currently Amended) The method according to claim 20, wherein said transport network is based on ~~IP~~ internet protocol network.

24. (Currently Amended) ~~A system~~ An apparatus comprising:
an inter-working function linked with an asynchronous transfer mode ~~Asynchronous Transfer Mode (ATM)~~ transport network and an internet protocol ~~Internet Protocol (IP)~~ transport network,

wherein said inter-working function comprises a mapping entity that is configured to:

use a user defined information element of an existing protocol, that is used for establishing data transport bearers, to adapt a new protocol for controlling the transport bearers in a ~~Transport Network Layer~~ transport network layer, and

convey transport related information between entities in the ~~ATM~~ asynchronous transfer mode and ~~IP~~ internet protocol transport networks for controlling the transport bearers in the ~~Transport Network Layer~~ transport network layer.

25. (Currently Amended) The ~~system~~ apparatus according to claim 24, wherein said ~~ATM~~ asynchronous transfer mode transport network is used in ~~Radio Access Network~~ radio access network, and wherein said existing protocol is an access link

~~control application protocol Access Link Control Application Protocol (ALCAP)~~
~~protocol-based on asynchronous transfer mode adaptation layer type 2 signalling-ATM~~
~~Adaptation Layer Type 2 (AAL2) Signalling.~~

26. (Currently Amended) The ~~system-apparatus~~ according to claim 25, wherein said ~~AAL2~~ asynchronous transfer mode adaptation layer type 2 signalling is based on International Telecommunication Union (ITU)-Recommendation Q.2630.

27. (Currently Amended) The ~~system-apparatus~~ according to claim 26, wherein the inter-working function is further configured to further comprising:

~~utilizing-utilize~~ as said user defined information element of an existing protocol a served user transport ~~Served User Transport (SUT)~~ Element of said Q.2630 signalling.

28. (Currently Amended) The ~~system-apparatus~~ according to claim 24, wherein the inter-working function is further configured to provide comprising:

a checking entity configured to check whether an address information is compatible with an address space of receiving protocol, when receiving an address information of an ~~Radio Access Network~~ a radio access network node; and

an address determining entity configured to determine an address of the said inter-working function

29. (Currently Amended) An apparatus comprising:

controlling means for controlling an inter-working function linked with an asynchronous transfer mode ~~Asynchronous Transfer Mode (ATM)~~-transport network and an internet protocol ~~Internet Protocol (IP)~~-transport network;

mapping means for using a user defined information element of an existing protocol for establishing data transport bearers to adapt a new protocol for controlling the transport bearers in a ~~Transport Network Layer~~ transport network layer; and

conveying means for conveying transport related information between entities in the ~~ATM~~ asynchronous transfer mode and ~~IP~~ internet protocol transport networks for controlling the transport bearers in the ~~Transport Network Layer~~ transport network layer.

30. (Currently Amended) A ~~computer program embodied on a computer readable medium, the computer readable medium storing code comprising encoded with~~ computer executable instructions ~~configured to comprising: control an inter-working function linked with an Asynchronous Transfer Mode (ATM) transport network and an Internet Protocol (IP) transport network~~ by performing:

configuring ~~said~~ an inter-working function linked with an asynchronous transfer mode transport network and an internet protocol transport network to use a user defined information element of an existing protocol;

using the existing protocol for establishing data transport bearers to adapt a new protocol for controlling the transport bearers in a ~~Transport Network Layer~~ transport network layer; and

conveying transport related information between entities in the ATM asynchronous transfer mode and ~~IP~~ internet protocol transport networks for controlling the transport bearers in the ~~Transport Network Layer~~ transport network layer.

31. (New) An apparatus comprising:

a controller configured to control an inter-working function linked with an asynchronous transfer mode transport network and an internet protocol transport network;

a mapper configured to use a user defined information element of an existing protocol to establish data transport bearers to adapt a new protocol to control the transport bearers in a transport network layer; and

a conveyor configured to convey transport related information between entities in the asynchronous transfer mode and internet protocol transport networks for controlling the transport bearers in the transport network layer.